CLAIMS

I claim:

1. A Collection Symbolic Job Expander process for expanding a collection symbolic job request into a list of expanded job requests, to be performed on or with the aid of a computer, comprising the following steps:

(a) receiving a collection symbolic job request from a request originator to perform a collection job expansion action on said collection symbolic job request,

(b) performing said collection job expansion action on said collection symbolic job request using a collection symbolic job expander means to produce an expanded job list,

(c) returning said expanded job list to said request originator,

wherein said collection symbolic job request is comprised of a symbolic task name and a collection reference expression, and wherein said expanded job list is comprised of a list of expanded job requests, each comprised of said symbolic task name, an expanded collection name, a computing platform name, and a collection visit order value,

thereby solving the Collection Symbolic Job Expansion Problem, and improving the productivity of people who process collections by enabling them to use a convenient symbolic job syntax for requesting complex processing tasks on large sets of collections.

2. The process of claim 1, wherein

(a) said step of performing said collection job expansion action uses information from a collection storage system to expand a collection reference expression,

thereby solving the Collection Reference Expansion Problem, and thereby improving human productivity by enabling people to use convenient collection reference

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expressions to refer to sets of collections, without being responsible for knowing exactly which collections are members of said sets of collections.

3. The process of claim 1, wherein

(a) said step of performing said collection job expansion action uses information from a collection type definition to determine platform assignment information, and

wherein said collection type definition is a user-defined set of attributes that are useful to application programs for understanding and processing collections,

thereby solving the Collection Platform Assignment Problem, and thereby improving human productivity by enabling collection processing programs to automatically determine platform assignment details for collection job requests in ways that were not previously known to the art.

4. The process of claim 1, wherein

(a) said step of performing said collection job expansion action uses information from a collection specifier or from a collection type definition to determine collection visit order values, and

wherein collection specifiers contain information about collection instances, including collection type indicators and explicit visit order values, and wherein said collection type definition is a user-defined set of attributes that are useful to application programs for understanding and processing collections,

thereby solving the Collection Visit Order Problem, and thereby improving human productivity by enabling collection processing programs to automatically determine collection visit order values to enforce processing dependencies among collections in a set, in ways that were not previously known to the art.

5. A programmable Collection Symbolic Job Expander device for expanding a collection symbolic job request into a list of expanded job requests, whose actions are directed by software executing a process comprising the following steps:

(a), receiving a collection symbolic job request from a request originator to perform a collection job expansion action on said collection symbolic job request,

(b) performing said collection job expansion action on said collection symbolic job request using a collection symbolic job expander means to produce an expanded job list,

(c) returning said expanded job list to said request originator,

wherein said collection symbolic job request is comprised of a symbolic task name and a collection reference expression, and wherein said expanded job list is comprised of a list of expanded job requests, each comprised of said symbolic task name, an expanded collection name, a computing platform name, and a collection visit order value,

thereby solving the Collection Symbolic Job Expansion Problem, and improving the productivity of people who process collections by enabling them to use a convenient symbolic job syntax for requesting complex processing tasks on large sets of collections.

6. The programmable device of claim 5, wherein

(a) said step of performing said collection job expansion action uses information from a collection storage system to expand a collection reference expression,

thereby solving the Collection Reference Expansion Problem, and thereby improving human productivity by enabling people to use convenient collection reference expressions to refer to sets of collections, without being responsible for knowing exactly which collections are members of said sets of collections.

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7. The programmable device of claim 5, wherein

(a) said step of performing said collection job expansion action uses information from a collection type definition to determine platform assignment information, and

wherein said collection type definition is a user-defined set of attributes that are useful to application programs for understanding and processing collections,

thereby solving the Collection Platform Assignment Problem, and thereby improving human productivity by enabling collection processing programs to automatically determine platform assignment details for collection job requests in ways that were not previously known to the art..

8. The programmable device of claim 5, wherein

(a) said step of performing said collection job expansion action uses information from a collection specifier or from a collection type definition to determine collection visit order values, and

wherein collection specifiers contain information about collection instances, including collection type indicators and explicit visit order values, and wherein said collection type definition is a user-defined set of attributes that are useful to application programs for understanding and processing collections,

thereby solving the Collection Visit Order Problem, and thereby improving human productivity by enabling collection processing programs to automatically determine collection visit order values to enforce processing dependencies among collections in a set, in ways that were not previously known to the art.

9. A computer readable memory, encoded with data representing a Collection Symbolic Job Expander computer program, that can be used to direct a computer when used by the computer, comprising:

(a) means for receiving a collection symbolic job request from a request originator to perform a collection job expansion action on said collection symbolic job request,

(b) means for performing said collection job expansion action on said collection symbolic job request using a collection symbolic job expander means to produce an expanded job list,

(c) means for returning said expanded job list to said request originator,

wherein said collection symbolic job request is comprised of a symbolic task name and a collection reference expression, and wherein said expanded job list is comprised of a list of expanded job requests, each comprised of said symbolic task name, an expanded collection name, a computing platform name, and a collection visit order value,

thereby solving the Collection Symbolic Job Expansion Problem, and improving the productivity of people who process collections by enabling them to use a convenient symbolic job syntax for requesting complex processing tasks on large sets of collections.

10. The computer readable memory of claim 9, wherein

(a) said means for performing said collection job expansion action uses information from a collection storage system to expand a collection reference expression,

thereby solving the Collection Reference Expansion Problem, and thereby improving human productivity by enabling people to use convenient collection reference expressions to refer to sets of collections, without being responsible for knowing exactly which collections are members of said sets of collections.

11. The computer readable memory of claim 9, wherein

(a) said means for performing said ,collection job expansion action uses

information from a collection type definition to determine platform assignment information, and

wherein said collection type definition is a user-defined set of attributes that are useful to application programs for understanding and processing collections,

thereby solving the Collection Platform Assignment Problem, and thereby improving human productivity by enabling collection processing programs to automatically determine platform assignment details for collection job requests in ways that were not previously known to the art.

12. The computer readable memory of claim 9, wherein

(a) said means for performing said collection job expansion action uses information from a collection specifier or from a collection type definition to determine collection visit order values, and

wherein collection specifiers contain information about collection instances, including collection type indicators and explicit visit order values, and wherein said collection type definition is a user-defined set of attributes that are useful to application programs for understanding and processing collections,

thereby solving the Collection Visit Order Problem, and thereby improving human productivity by enabling collection processing programs to automatically determine collection visit order values to enforce processing dependencies among collections in a set, in ways that were not previously known to the art.